



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/740,585      | 12/18/2000  | Jeffrey Morgan Alden | GP-300849           | 6363             |

7590 08/03/2005

GEORGE A. GROVE  
General Motors Corporation  
Legal Staff  
P.O. Box 300, Mail Code 482-C23-B21  
Detroit, MI 48265-3000

EXAMINER

CAMPBELL, JOSHUA D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2178

DATE MAILED: 08/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

**MAILED**

**AUG 03 2005**

**Technology Center 2100**

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/740,585  
Filing Date: December 18, 2000  
Appellant(s): ALDEN ET AL.

---

John A. Miller  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed November 15, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims 1-3, 5, 6, 8-12, 14, and 17-20 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claims 4 and 13 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claims 7, 15, and 21 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claims 16 and 22 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

Brandywine Software LLC, Spreadsheet xlNavigator, September 28, 2000, Brandywine Software LLC, release 1, pages 1-9,  
<<http://web.archive.org/web/20010203164700/http://brandywine-software.com>>

6,041,360

Himmel et al.

03-2000

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandywine Software, LLC (hereinafter Brandywine, xlNavigator web page published on September 28, 2000) in view of Himmel et al. (hereinafter Himmel, US Patent Number 6,041,360, issued on March 21, 2000).

**Regarding independent claim 1**, Brandywine discloses a method in which cells in a spreadsheet are identified as data or calculation cells (Pages 3-4 of Brandywine). From this a visual representation is formed using data and calculation entities, which correspond to the cells (Pages 3-4 of Brandywine). The entities are positioned based on a predetermined layout in which arrows connect the entities based on their corresponding relationship in the spreadsheet (Pages 3-4 of Brandywine). Brandywine also discloses that changes in the cells are detected and the entities are changed to reflect those changes in order to maintain a functional equivalence (Pages 3-4 of Brandywine). Brandywine does not disclose that the changes are automatically made, rather that an update button must be selected by the user to reflect changes. However, Himmel discloses a method in which a bookmark representation of a corresponding web page is automatically changed/updated if a change is detected in the corresponding web page, thus keeping the different corresponding representations of information consistent (column 2, line 55-column 3, line 24 of Himmel). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the method of Brandywine with the method of Himmel because it would have guaranteed the user would always be viewing the correct up-to-date information.

**Regarding dependent claim 2**, Brandywine discloses that changes in the cells (including content changes) are detected and the entities are changed to reflect those changes in order to maintain a functional equivalence (Pages 3-4 of Brandywine).

**Regarding dependent claims 3 and 4**, Brandywine discloses that the user may configure the entities in a visually pleasing manner or allow the entities to be automatically configured based on an algorithm (Pages 3-4 and 7 of Brandywine).

**Regarding dependent claims 5 and 6**, Brandywine discloses that the appearance of each entity is based on its function, data entities into one shape and calculation into another shape (Pages 3-4 and 7 of Brandywine).

**Regarding dependent claim 7**, Brandywine discloses that multiple entities are created when a cell is used more than once in the spreadsheet (Pages 3-4 and 7 of Brandywine).

**Regarding dependent claim 8**, Brandywine discloses that entities are automatically deleted from the visual representation when the cells that correspond to them are removed from the spreadsheet (Pages 3-4 and 7 of Brandywine).

**Regarding dependent claim 9**, Brandywine discloses a method in which descriptive labels for each entity are identified (Pages 3-4 and 7 of Brandywine).

**Regarding independent claim 10**, Brandywine discloses a method in which cells in a spreadsheet are identified as data or calculation cells (Pages 3-4 of Brandywine). From this a visual representation is formed using data and calculation entities, which correspond to the cells (Pages 3-4 of Brandywine). The entities are positioned based on a predetermined layout in which arrows connect the entities based on their corresponding relationship in the spreadsheet (Pages 3-4 of Brandywine). Brandywine also discloses that changes in the cells and the entities are detected and

the entities or cells are changed to reflect those changes in order to maintain a functional equivalence between the two (Pages 3-4 of Brandywine).

**Regarding dependent claim 11,** The entities are positioned based on a predetermined layout in which arrows connect the entities based on their corresponding relationship in the spreadsheet (Pages 3-4 of Brandywine).

**Regarding dependent claims 12-15,** the claims incorporate substantially similar subject matter as claims 3-7. Thus, the claims are rejected along the same rationale as claims 3-7.

**Regarding dependent claims 16 and 22,** Brandywine does not disclose a method in which deleting entities from the visual representation automatically deletes the corresponding cells from the spreadsheet. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to do this because it would be necessary to maintain a direct link between the visual representation and Excel spreadsheet cells as disclosed by Brandywine (Pages 3-4 of Brandywine).

**Regarding dependent claim 17,** Brandywine discloses a visual representation that would have been an influence diagram because by definition an influence diagram by the applicant is "An influence diagram is a graphical display that describes a system or operation as a series of images (bubbles, nodes, etc.) interconnected by arrows," which is what is shown by Brandywine (Pages 3-4 and 7 of Brandywine).

**Regarding independent claim 18 and dependent claims 19-21,** the claims incorporate substantially similar subject matter as claims 10-11 and 14-15. Thus, the claims are rejected along the same rationale as claims 10-11 and 14-15.

**(11) Response to Argument**

Applicant's arguments filed 11/15/2004 have been fully considered but they are not persuasive.

The arguments based on claims 1, 10 and 18 regarding the limitation "...automatically changing the entities in the visual representation..." found on pages 1-10 and whether or not Brandywine in view of Himmel discloses it are not persuasive. As stated in the rejection, Brandywine discloses a method in which cells in a spreadsheet are identified as data or calculation cells (Pages 3-4 of Brandywine). From this a visual representation is formed using data and calculation entities, which correspond to the cells (Pages 3-4 of Brandywine). The entities are positioned based on a predetermined layout in which arrows connect the entities based on their corresponding relationship in the spreadsheet (Pages 3-4 of Brandywine). Brandywine also discloses that changes in the cells are detected and the entities are changed to reflect those changes in order to maintain a functional equivalence (Pages 3-4 of Brandywine). Technically, Brandywine discloses a method in which the equivalence is maintained automatically because when the user clicks the update button the computer changes all of the values automatically, not manually, but in order to give the applicant the benefit of the doubt the examiner found Himmel to show the teaching of a method of maintaining equivalence between two representations of a computer document can be done with zero user input (column 2, line 55-column 3, line 24 of Himmel). This would have been an obvious combination because it would have guaranteed the user would



always be viewing the correct up-to-date information, as shown by Himmel. This rejection would have been valid even if only the Brandywine reference had been used, but in hopes of expediting the prosecution the examiner used the Himmel reference to strengthen the rejection.

Regarding the corresponding arguments also found on pages 1-10 for claims 1, 10 and 18 regarding the limitation "...wherein the changes to the visual representation are automatically reflected in the spreadsheet..." and whether or not Brandywine discloses this are not persuasive. As shown in Brandywine (Pages 3-4 of Brandywine, which is shown in the example on Page 7) and further clarified in the addendum pages attached to end of this document, which contain examples generated with the Brandywine program to clarify the points in question, any time a user selects a item in the visual representation such as Item 2 on page 1 or Item 6 on Page 2 of the addendum, the color of said item changes. In response to this the color of the corresponding item in the spreadsheet automatically changes with the item in the visual representation, which can be shown by the correlation of Item 1 and 2 on page 1 and Item 6 and 7 on page 2 of the addendum. This proves that a functional equivalence is maintained when changes, in this case a change in color, occur in the visual representation as stated on Page 3 of Brandywine under the section labeled "Key Benefits" in which it states "Direct link between xlNavigator representation and Excel spreadsheet cells."

Regarding the arguments found on page 11, based on claims 4 and 13 with regards to the limitation "...employing an automatic design layout algorithm to configure

the entities..." and whether or not Brandywine discloses that limitation are not persuasive. As disclosed in the rejection, Brandywine discloses that the user may configure the entities in a visually pleasing manner or allow the entities to be automatically configured based on an algorithm (Pages 3-4 and 7 of Brandywine) as shown directly in the figure on Page 4 of Brandywine as "Layout" which is automatically set to "Top to Bottom" which is also shown for clarification purposes as Item 3 on Page 1 of the addendum.

Regarding the arguments found on page 12, based on claims 7, 15 and 21 with regards to the limitation "...creating multiple identical entities in the visual representation if the data cells are repeatedly used in the spreadsheet..." and whether or not Brandywine discloses that limitation are not persuasive. As stated in Brandywine and the rejection, Page 3 of Brandywine under the section labeled "Key Benefits" in which it states "Direct link between xINavigator representation and Excel spreadsheet cells," which means that any cell that is repeatedly used in the spreadsheet will be repeatedly shown in the visual representation. This is shown in the addendum by Items 4b and 5b on page 1 which are both the data cell representation of the same value, which in turn appear twice in the visual representation as shown by Items 4a and 5a on page 1 of the addendum. In the case where one cell is simply a reference to another cell also known as a repeated use, such as Items 9 which is a direct reference to Item 8 on Page 3 of the addendum, the visual representation will also generate two entities to represent the repeated use as shown by Items 10 and 11 on page 3 of the addendum.

Art Unit: 2178

Regarding the corresponding arguments also found on pages 1-10 for claims 1, 10 and 18 regarding the limitation "...wherein the changes to the visual representation are automatically reflected in the spreadsheet..." and whether or not Brandywine discloses this are not persuasive. As stated in Brandywine and the rejection, Page 3 of Brandywine under the section labeled "Key Benefits" in which it states "Direct link between xlNavigator representation and Excel spreadsheet cells," which means anytime a change is made to the visual representation it is reflected in the spreadsheet and vice versa. As to whether or not that change could be considered as being automatic, the response to the arguments regarding whether or not the process is automatically achieved or not may be applied for the same reasons as it is applied above.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

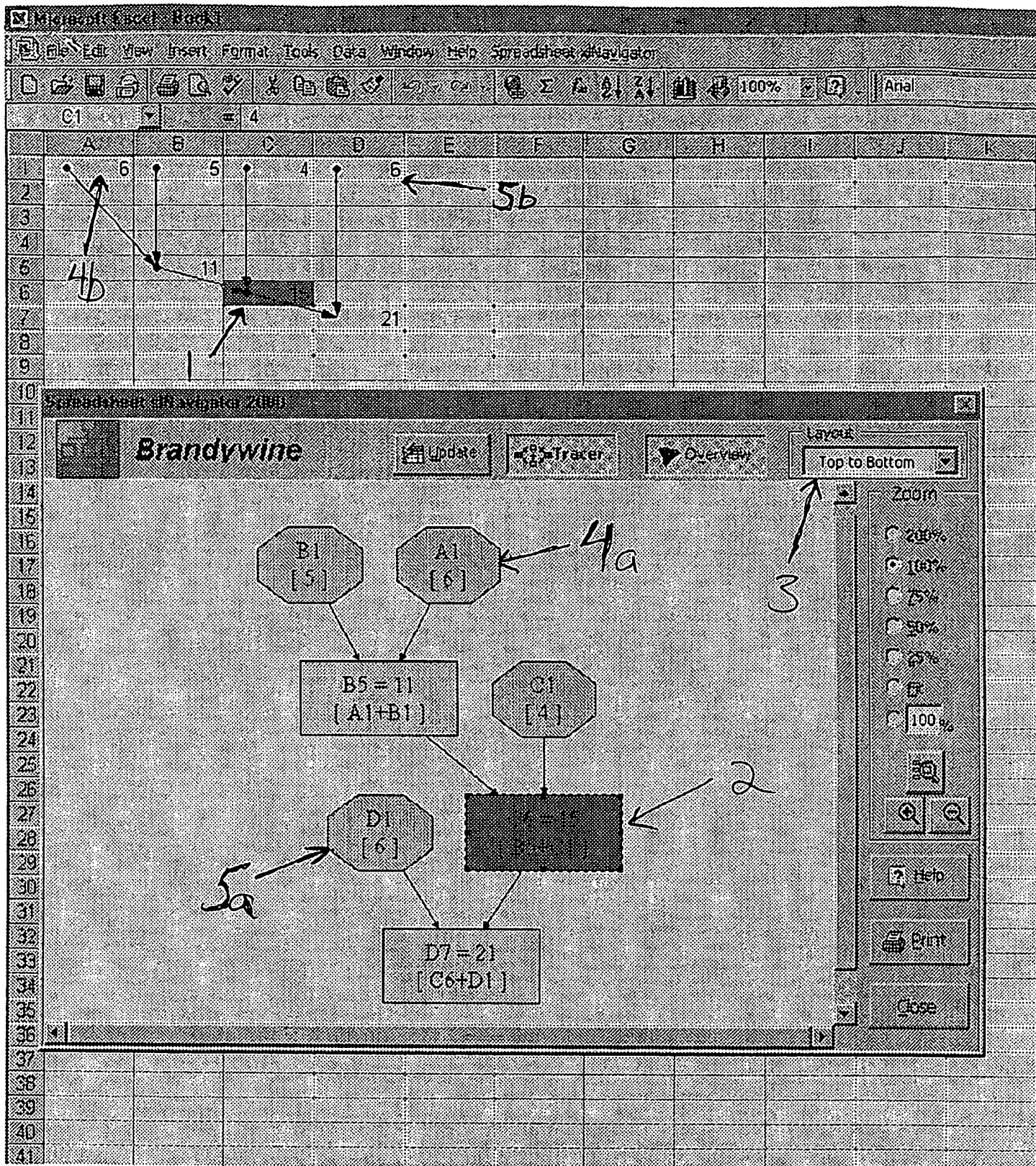
Joshua Campbell *JOC*  
July 28, 2005

*Stephen Hong*  
**STEPHEN HONG**  
SUPERVISORY PATENT EXAMINER

Conferees

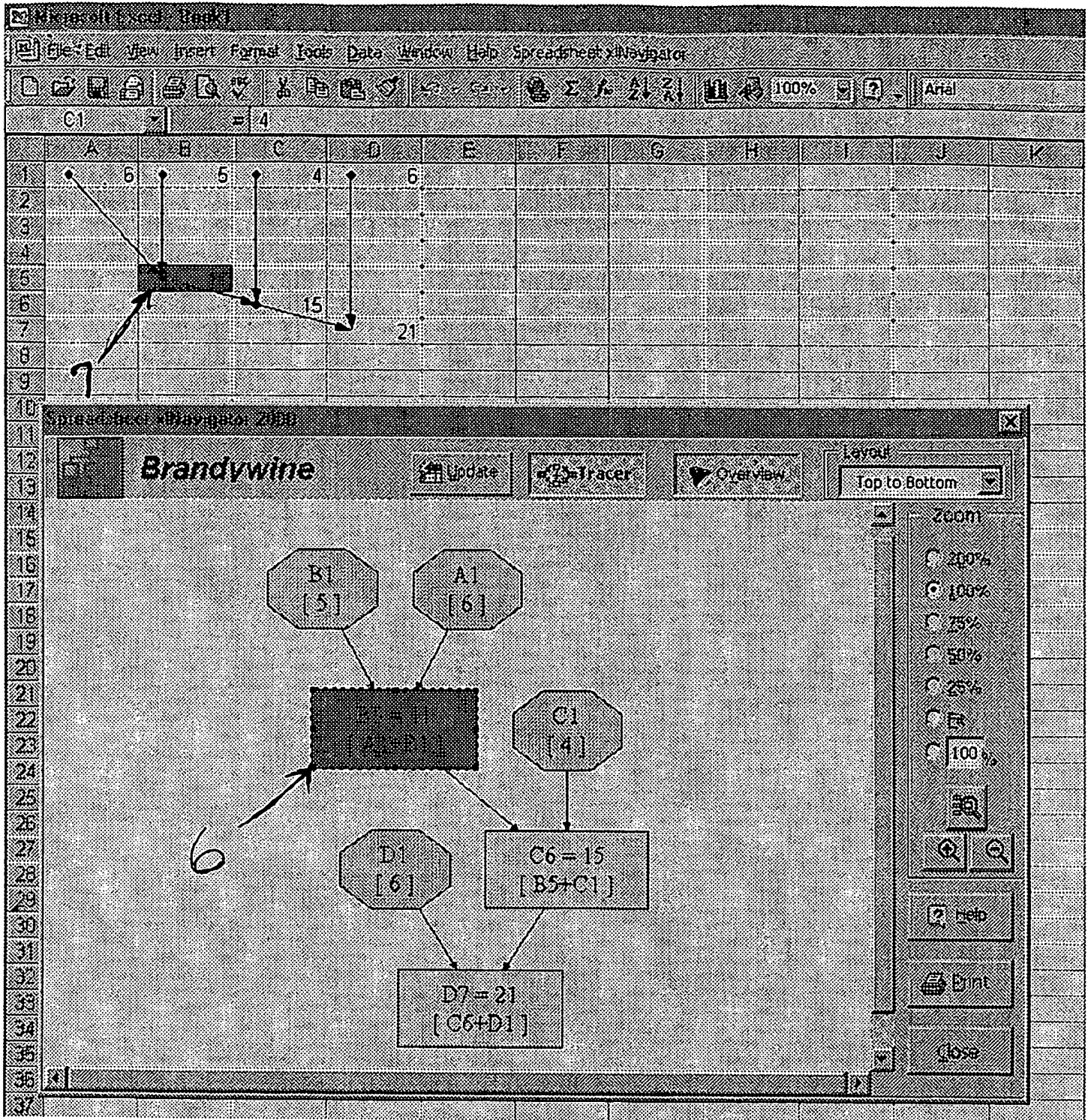
Joseph Feild, Supervisory Patent Examiner for Group Art Unit 2176 *for*  
Stephen Hong, Supervisory Patent Examiner for Group Art Unit 2178 *for*

GEORGE A. GROVE  
General Motors Corporation  
Legal Staff  
P.O. Box 300, Mail Code 482-C23-B21  
Detroit, MI 48265-3000



Best Available Copy

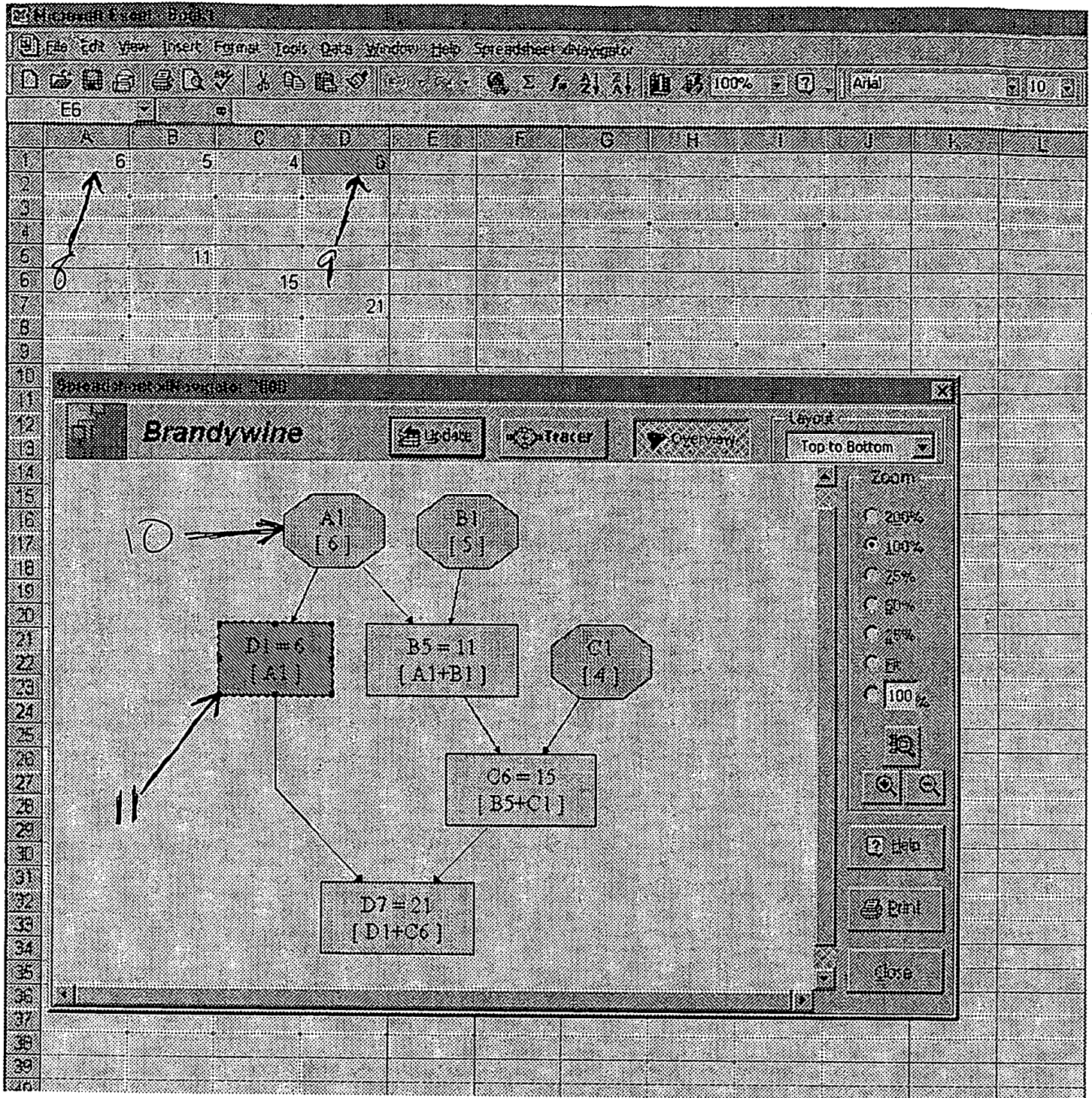
Addendum - Page 1



Best Available Copy

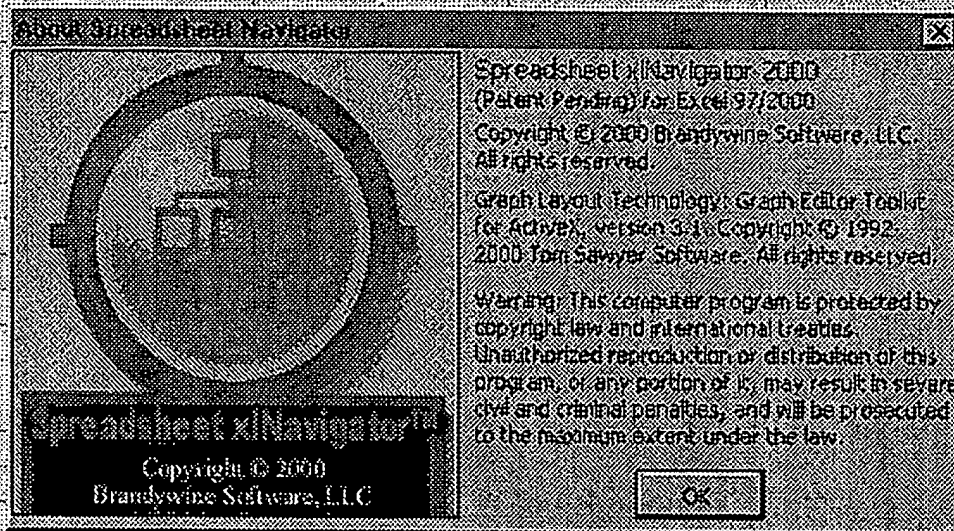
Addendum - Page 2





Best Available Copy

Addendum - Page 3



Addendum - Page 4

Best Available Copy